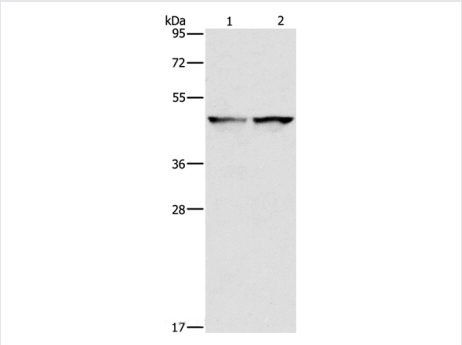
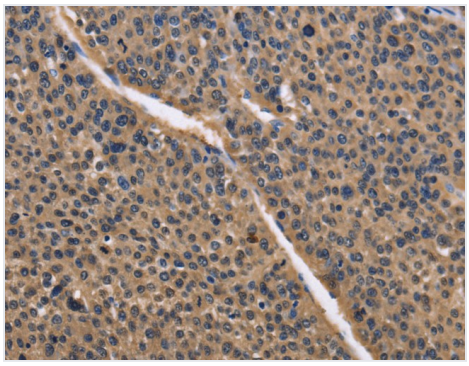
IDH1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

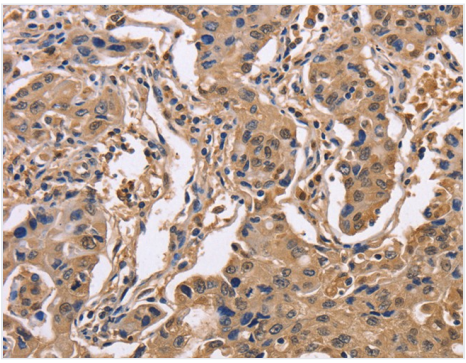
Product Name	IDH1, Polyclonal Antibody
Full Product Name	IDH1 Polyclonal Antibody
Product Gene Name	anti-IDH1 antibody
Product Synonym Names	IDH; IDP; IDCD; IDPC; PICD
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Purity/Purification	Antigen affinity purification
Concentration	2.2mg/mL (lot specific)
Preparation and Storage	Store at -20 degree C (regular) and -80 degree C (long term). Avoid freeze / thaw cycles.
Molecular Weight	46,659 Da
OMIM	137800
Immunogen	Recombinant protein of human IDH1
Buffer	PBS with 0.05% sodium azide, 50% glycerol, pH7.3
Product Categories/Family for anti-IDH1 antibody	Cancer; Epigenetics
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-IDH1 antibody	ELISA (EIA), Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-IDH1 antibody	WB: 1:200-1:1000 IHC: 1:50-1:200
Related Product Information for anti-IDH1 antibody	Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence.
Other Notes	Small volumes of anti-IDH1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for IDH1 purchase	MBS2521768 is an antibody targeting IDH1. Also known as IDH1 Polyclonal Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.



Western Blot (WB) of anti-IDH1 antibody
Western Blot analysis of 231 and hela cell using IDH1 Polyclonal Antibody at dilution of 1:550



Immunohistochemistry (IHC) of anti-IDH1 antibody
Immunohistochemistry of paraffin-embedded Human liver cancer using IDH1 Polyclonal Antibody at dilution of 1:50



Immunohistochemistry (IHC) of anti-IDH1 antibody
Immunohistochemistry of paraffin-embedded Human lung cancer using IDH1 Polyclonal Antibody at dilution of 1:50

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IDH1. It may not necessarily be applicable to this product.

NCBI GI #	538917681
NCBI GeneID	3417
NCBI Accession #	NP_001269316.1
UniProt Secondary Accession #	Q567U4; Q6FHQ6; Q7Z3V0; Q93090; Q9NTJ9; Q9UKW8
UniProt Related Accession #	O75874
GenBank Nucleotide #	NM_001282387.1
NCBI Official Full Name	isocitrate dehydrogenase
NCBI Official Synonym Full Names	isocitrate dehydrogenase 1 (NADP+), soluble
NCBI Official Symbol	IDH1
NCBI Official Synonym Symbols	IDH; IDP; IDCD; IDPC; PICD; HEL-216; HEL-S-26
UniProt Protein Name	Isocitrate dehydrogenase [NADP] cytoplasmic
UniProt Synonym Protein Names	Cytosolic NADP-isocitrate dehydrogenase; IDP; NADP(+)-specific ICDH; Oxalosuccinate decarboxylase
Protein Family	Isocitrate dehydrogenase
UniProt Gene Name	IDH1
UniProt Synonym Gene Names	PICD; IDH
UniProt Entry Name	IDHC_HUMAN

NCBI Protein Information	isocitrate dehydrogenase [NADP] cytoplasmic; isocitrate dehydrogenase [NADP] cytoplasmic; NADP(+)-specific ICDH; NADP-dependent isocitrate dehydrogenase, cytosolic; NADP-dependent isocitrate dehydrogenase, peroxisomal; epididymis luminal protein 216; epididymis secretory protein Li 26; oxalosuccinate decarboxylase
NCBI Summary for IDH1	Isocitrate dehydrogenases catalyze the oxidative decarboxylation of isocitrate to 2-oxoglutarate. These enzymes belong to two distinct subclasses, one of which utilizes NAD(+) as the electron acceptor and the other NADP(+). Five isocitrate dehydrogenases have been reported: three NAD(+)-dependent isocitrate dehydrogenases, which localize to the mitochondrial matrix, and two NADP(+)-dependent isocitrate dehydrogenases, one of which is mitochondrial and the other predominantly cytosolic. Each NADP(+)-dependent isozyme is a homodimer. The protein encoded by this gene is the NADP(+)-dependent isocitrate dehydrogenase found in the cytoplasm and peroxisomes. It contains the PTS-1 peroxisomal targeting signal sequence. The presence of this enzyme in peroxisomes suggests roles in the regeneration of NADPH for intraperoxisomal reductions, such as the conversion of 2, 4-dienoyl-CoAs to 3-enoyl-CoAs, as well as in peroxisomal reactions that consume 2-oxoglutarate, namely the alpha-hydroxylation of phytanic acid. The cytoplasmic enzyme serves a significant role in cytoplasmic NADPH production. Alternatively spliced transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Sep 2013]
UniProt Comments for IDH1	IDH1: an oxidoreductase that catalyzes the third step of the TCA cycle: the oxidative decarboxylation of isocitrate, consuming NADP(+), and producing alpha-ketoglutarate (alpha-KG) and CO2. Alpha-KG is an activator the dioxygenases that hydroxylate the transcription factor HIF and lead to its degradation by VHL. Since HIF turns on oncogenic pathways, IDH1 has apparent tumor suppressor activity. Homo-dimerization is required for activity. Each subunit binds 1 magnesium or manganese ion. IDH1 is located in the cytosol and peroxisomes. Somatic mutations affecting arginine 132 (R132) are found in 80% of grade II?III gliomas and secondary glioblastomas in humans, and cause disease in a tissue-specific fashion. Only a single copy of the gene has been found to be mutated in tumours. Mutations of R132 to H, C, S, G, V, or L have been reported to be neomorphic, abolishing the conversion of isocitrate to alpha-KG. Instead, alpha-KG is converted to R(-)-2-hydroxyglutarate (2HG). Elevated levels of 2HG correlate with an elevated risk of malignant brain tumors. Neomorphic mutations in IDH1 and IDH2 convert alpha-KG to 2-hydroxyglutarate (2-HG) occur in a high percentage of patients with cytogenetically normal acute myeloid leukemia (AML). Protein type: Carbohydrate Metabolism - citrate (TCA) cycle; EC 1.1.1.42; Other Amino Acids Metabolism - glutathione; Oxidoreductase Chromosomal Location of Human Ortholog: 2q33.3 Cellular Component: peroxisomal matrix; mitochondrion; cytoplasm; peroxisome; cytosol Molecular Function: protein homodimerization activity; magnesium ion binding; isocitrate dehydrogenase (NADP+) activity; NADP binding; NAD binding; receptor binding Biological Process: glyoxylate cycle; NADPH regeneration; isocitrate metabolic process; glutathione metabolic process; tricarboxylic acid cycle; response to steroid hormone stimulus; response to oxidative stress; cellular lipid metabolic process; female gonad development; 2-oxoglutarate metabolic process Disease: Glioma Susceptibility 1
Research Articles on IDH1	**1.** IDH mutation is a central and defining event in the development and progression of glioma and may be a key target for future therapies for these types of neoplasms.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.

Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-mouse-rat-antibody/idh1/2521768